00227 "6526762

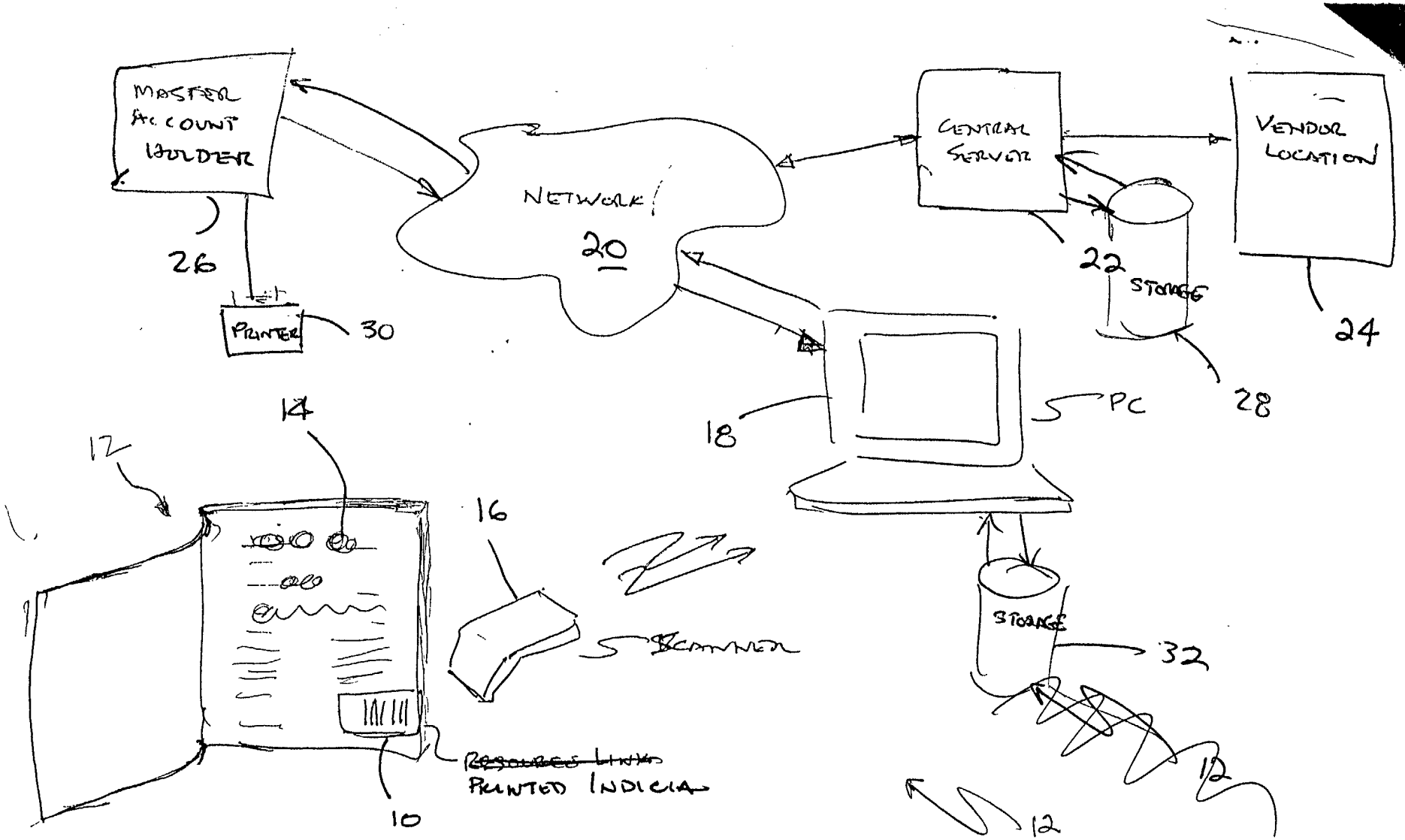


FIG. 1

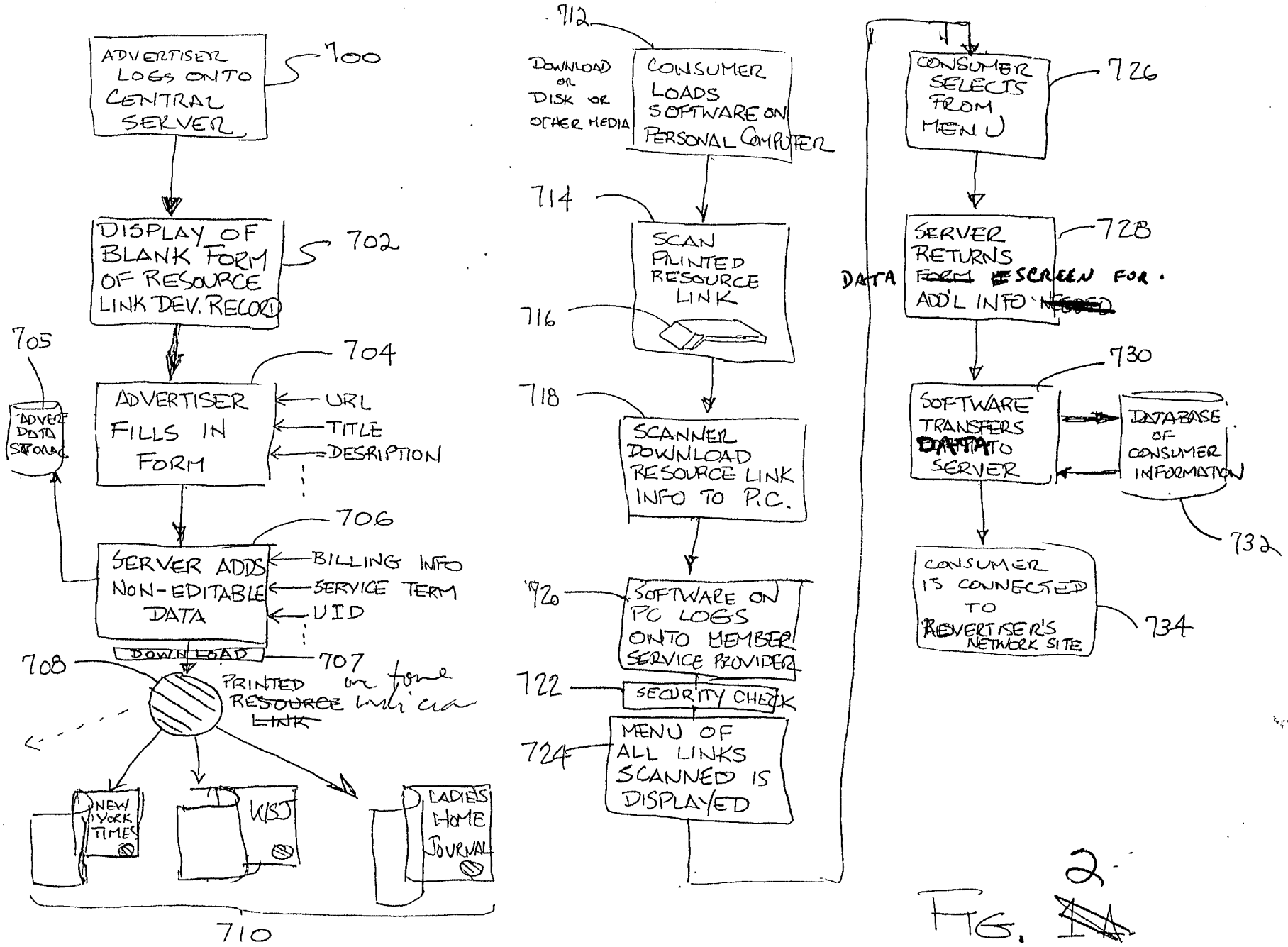

ADVERTISER LOGS ONTO CENTRAL SERVER
700
DISPLAY OF BLANK FORM OF RESOURCE LINK DEV. RECORD
702
705
ADVERT DATA STORAGE
704
ADVERTISER FILLS IN FORM
URL
TITLE
DESRIPTION
706
SERVER ADDS NON-EDITABLE DATA
BILLING INFO
SERVICE TERM
UID
DOWN LOAD
707
708
PRINTED ~~LINK~~ or form RESOURCE indicia
NEW YORK TIMES
WSJ
LADIES HOME JOURNAL
710
712
DOWNLOAD OR DISK OR OTHER MEDIA
CONSUMER LOADS SOFTWARE ON PERSONAL COMPUTER
714
SCAN PRINTED RESOURCE LINK
716
718
SCANNER DOWNLOAD RESOURCE LINK INFO TO P.C.
720
SOFTWARE ON PC LOGS ONTO MEMBER SERVICE PROVIDER
722
SECURITY CHECK
724
MENU OF ALL LINKS SCANNED IS DISPLAYED
726
CONSUMER SELECTS FROM MENU
728
DATA
SERVER RETURNS ~~FORM~~ SCREEN FOR ADD'L INFO ~~NEEDED~~
730
SOFTWARE TRANSFERS ~~DATA~~ TO SERVER
DATABASE OF CONSUMER INFORMATION
732
CONSUMER IS CONNECTED TO ADVERTISER'S NETWORK SITE
734

FIG. 2

Create ~~HotDot~~ Record

198

FIG 3

Resources Link Devices

Registrar

Resolution Sub System (ResSys)

URL (Universal Resource Locator) Template
This is a standard Internet URL with zero or more named parameters surrounded by angle brackets, for example <DOB> for consumer's date of birth. Parameters can refer to a field in the consumer demographics database - these are supplied at HotDot resolution time. Parameters can also refer to one of this HotDot's Embedded Fields (see below); these are supplied at HotDot rendering time.

Short and Long Titles
These identify how the underlined hyperlink should appear when displaying a HotDot List. The Short Title is needed when screen real estate is restricted on the Internet Client (ie, PDA, cell phone).

Description
This is a brief description of the target page.

Embedded Description
Up to 8 character text to be embedded into the actual rendered HotDot image.

Embedded Category
User picks from a list of categories. This is then mapped to a three character code embedded in the rendered HotDot image to help identify its function at scan time, perhaps via an on-screen icon.

Search Meta Tags?
User must specify if the specified Web page contains meta tags that should be searched daily to automatically update certain HotDot details.

HotDots Guide Category
User picks from a tree-selector of hierarchical categories to determine where this HotDot would appear in the Guide.

HotDots Searchable Keywords
User enters a few keywords that can be subsequently searched for.

Image
User can upload an image to be displayed along with the titles and description on a HotDots list.

Embedded Field List
User can specify one or more fields to be supplied at HotDot rendering time. Each parameter is assigned a name, datatype, length, and ordinal position. Example: name "Serial Number", type "Integer", length 4 bytes,

Start

100 User logs into Registrar

202

102 User initializes a blank ~~HotDot~~ Inoicia record.

Required

104. User supplies required information

204

205

101. Optional Info?

No

Yes

206

Optional

106. User supplies one or more optional ~~HotDot~~ Inoicia fields.

108. User initiates save operation.

208

110. Non-editable fields are assigned values, for example, ~~HotDot~~ Inoicia expiration date.

210

112. BEGIN DISTRIBUTED TRANSACTION

212

114. Registrar logs into ResSys

214

Inoicia

116. ~~HotDot~~ data is sent to ResSys

216

118. Inoicia ~~HotDot~~ UID

218

220

120. Inoicia ~~HotDot~~ using UID as Primary Key
Rollback Trans on Error

Inoicia ~~HotDot~~ Record

Inoicia ~~HotDots~~ Database

122. COMMIT DISTRIBUTED TRANSACTION

222

Stop

Start

Authent Data + Trans ID

124. ResSys receives authentication data and transaction ID; ResSys begins a session.

224

Inoicia ~~HotDot~~ Data

126. Inoicia ResSys receives ~~HotDot~~ Data from Registrar

226

Inoicia ~~HotDot~~ UID

128. Inoicia Generate a new ~~HotDot~~ UID (Unique ID); Rollback Trans on Error.

228

230

130. Insert new ~~HotDot~~ Inoicia Record using UID as Primary Key
Rollback Trans on Error

Inoicia ~~HotDot~~ UID

232

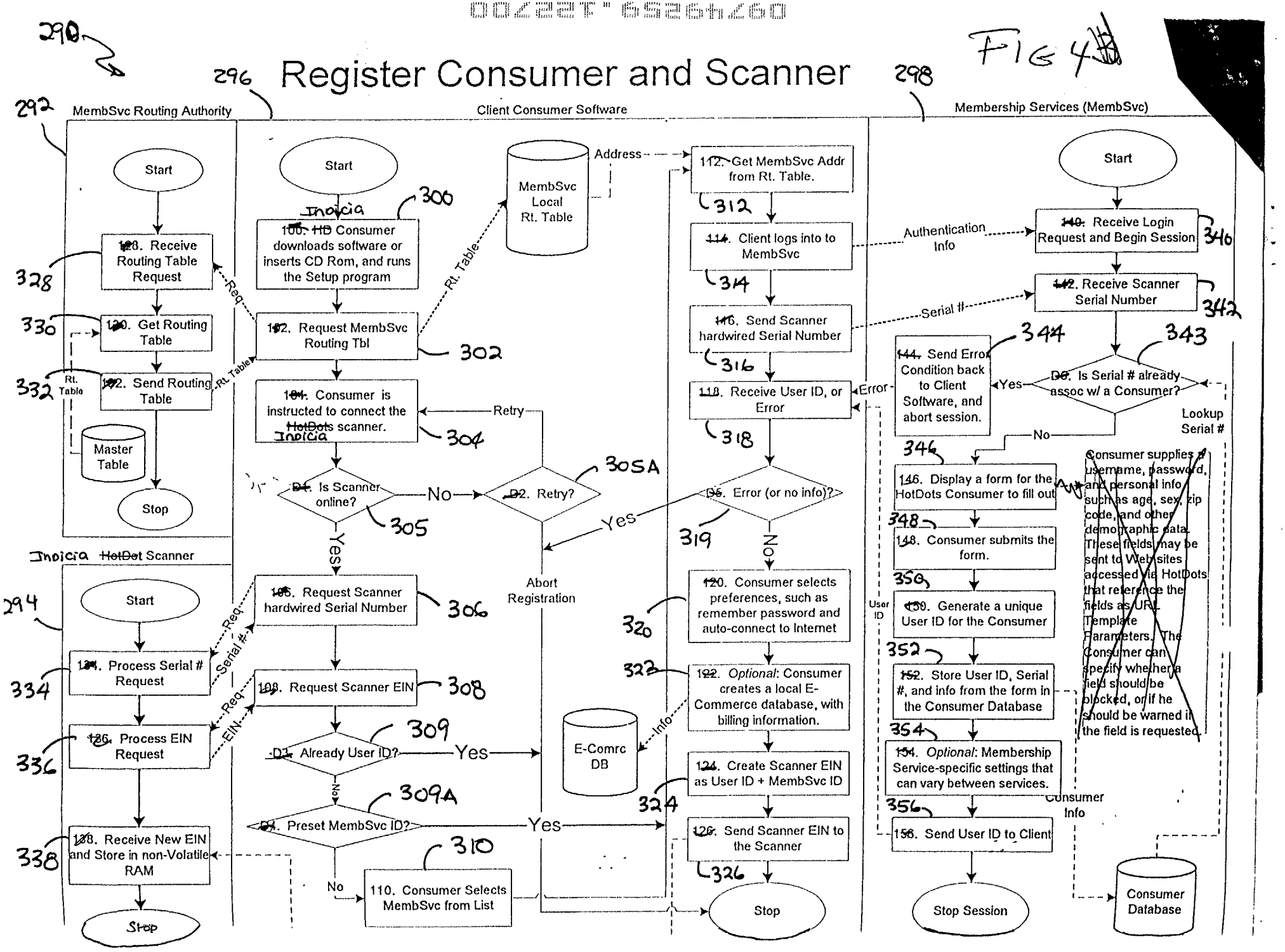
132. Send UID to Registrar

Inoicia ~~HotDot~~ Record

Stop Session

Inoicia ~~HotDots~~ Database

0627T"6526760



00227" 6526h760

398

Inoicia Render HotDot Record

FIG. 5

396 Registrar

394 Inoicia Client HotDot Management Software

392 Registrar

Manual - Single HotDot - Serverside Rendering

Auto - Multiple HotDots - Clientside Rendering

REPLACE "USER" WITH "ADVERTISER"

Start

400 100. User logs into Registrar

402 102. User selects a HotDot to Render from the Inoicia database.

404 104. Registrar loads HotDot Record from Inoicia database.

Inoicia HotDot Record

HotDots Inoicia Database

405 D1. Embedded Fields? Yes

406 106. User enters values for each Embedded Field

NO

408 108. Embed UID, Desc, Cat, and any Embedded Values into HotDot Inoicia datastream ~~see chart~~.

410 110. Datastream is encrypted.

Inoicia

412 112. HotDot graphical image is rendered and downloaded to client.

Stop

Start

414 Client Software logs into Registrar, and builds a list of HotDot UID's to render (either via script or user input). The HotDot UID's are selected from a database.

Inoicia

416 Inoicia Client Software gets next HotDot UID to render.

417 Embedded Fields? Yes

418 118. Client Software determines Embedded Field Values; this may be automated or involve User Interaction

NO

420 120. Client Software uploads UID and any Embedded Values to Registrar

UID + Embedded Values

419 D4. Done?

422 122. Send End-of-List Indicator

End-of-List Indicator

424 124. Receive list of Encrypted HotDot Datastreams

Inoicia HotDot Datastreams

426 126. Client Software renders each HotDot Datastream

Inoicia

Stop

Authentication data

Start

428 128. Registrar receives authentication data and begins a session.

430 130. Registrar receives Inoicia HotDot UID and Embedded Values

432 132. Registar looks up HotDot record in the database.

Inoicia HotDot Record

Inoicia HotDots Database

434 134. Embed UID, Desc, Cat, and any Embedded Values into HotDot datastream - see chart.

Inoicia NO

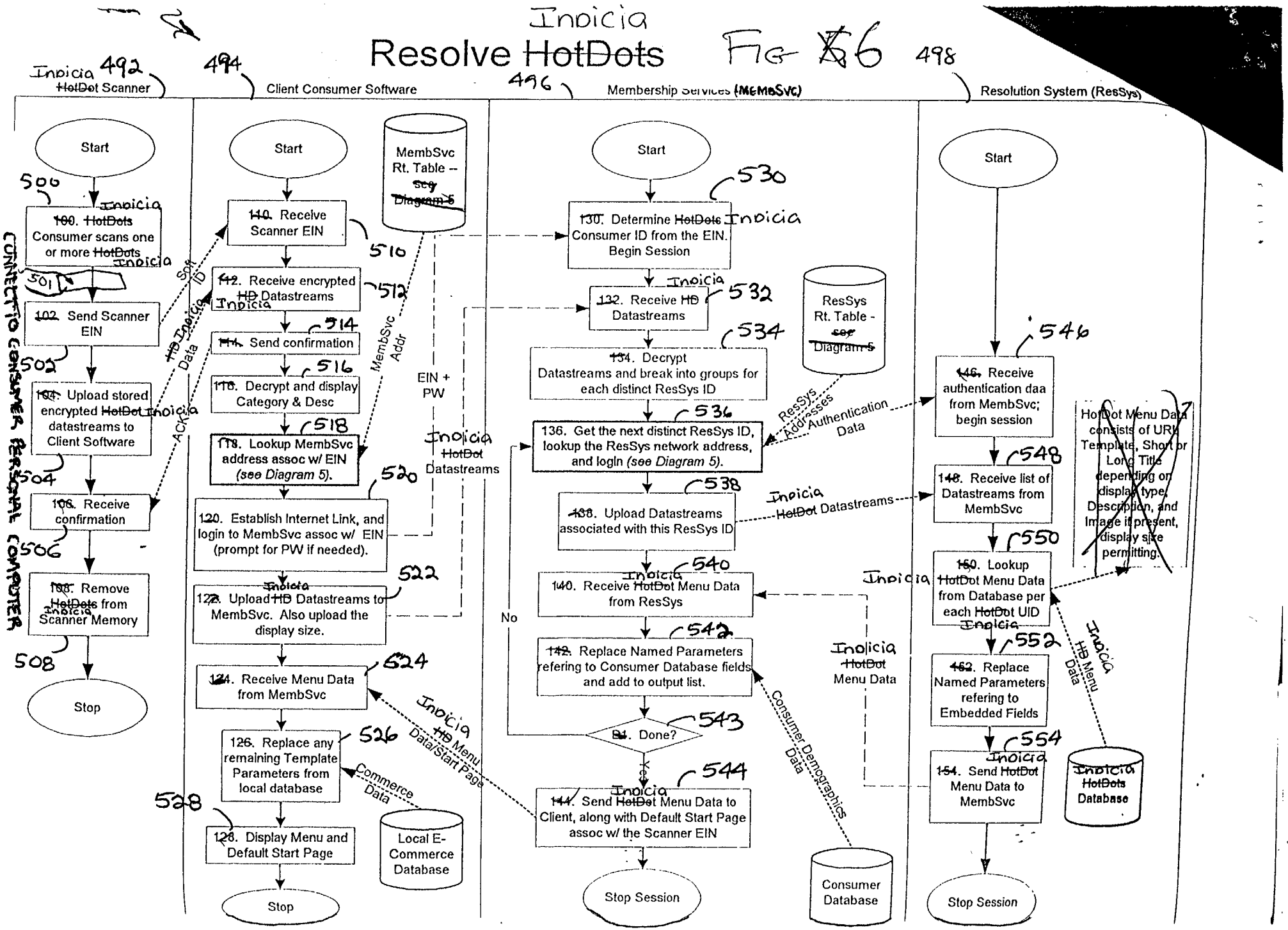
436 136. Datastream is encrypted, and added to output list.

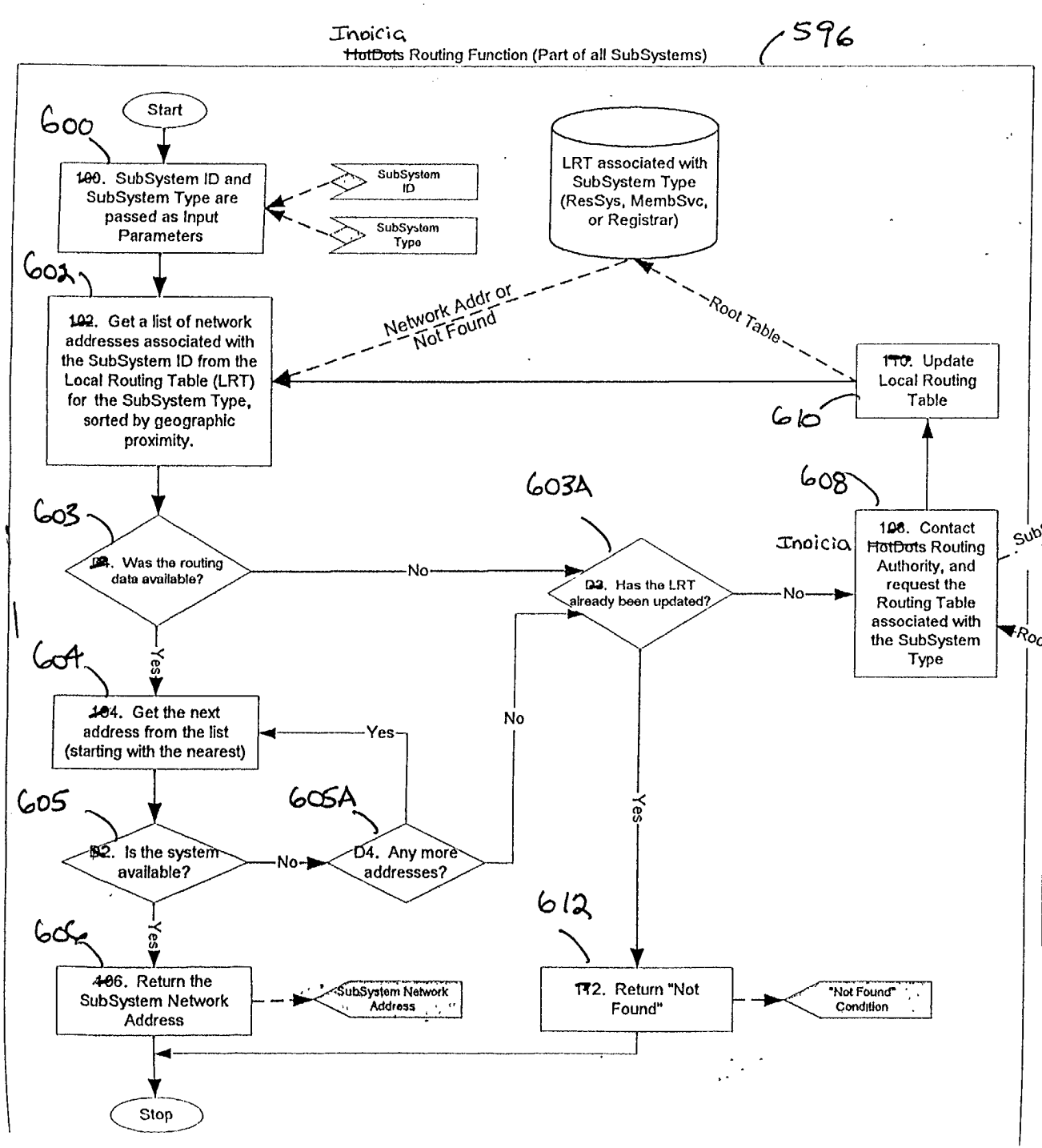
437 D5. Got End-of-List?

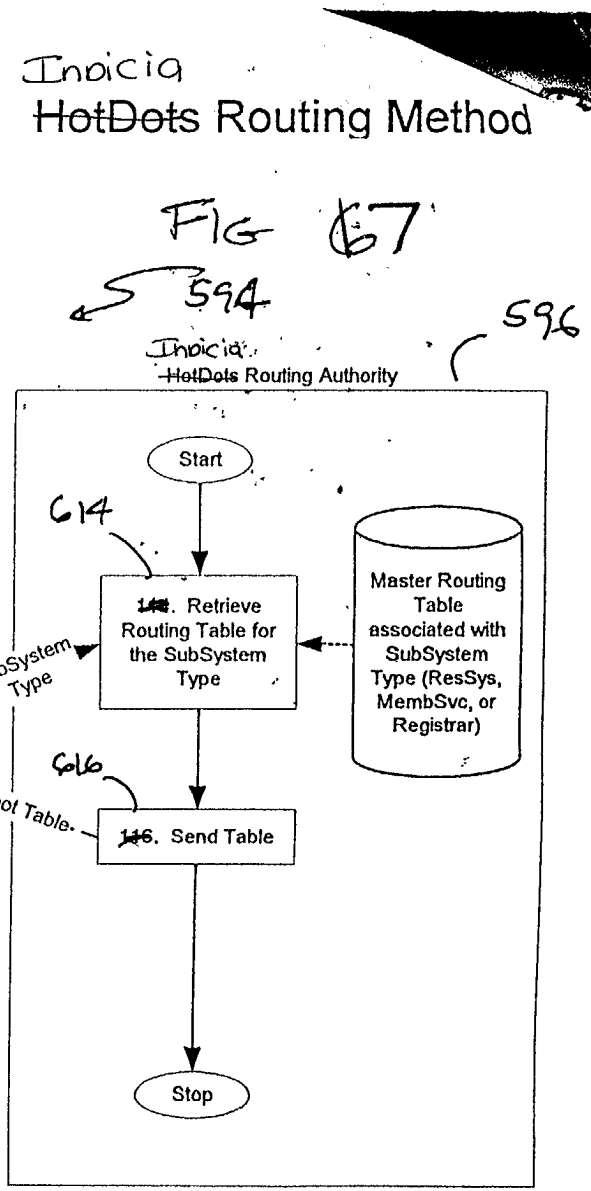
438 138. Send list of HotDot Inoicia Datastreams

Stop Session

Inoicia Resolve ~~HotDots~~ Fig ~~5~~ 6




Inoicia
HotDots Routing Function (Part of all SubSystems)
596
600
Start
100. SubSystem ID and SubSystem Type are passed as Input Parameters
SubSystem ID
SubSystem Type
LRT associated with SubSystem Type (ResSys, MembSvc, or Registrar)
602
102. Get a list of network addresses associated with the SubSystem ID from the Local Routing Table (LRT) for the SubSystem Type, sorted by geographic proximity.
Network Addr or Not Found
Root Table
110. Update Local Routing Table
610
603
103. Was the routing data available?
No
603A
608
Inoicia
106. Contact HotDots Routing Authority, and request the Routing Table associated with the SubSystem Type
SubSystem Type
Root Table
D3. Has the LRT already been updated?
No
Yes
604
104. Get the next address from the list (starting with the nearest)
Yes
No
605
D2. Is the system available?
No
605A
D4. Any more addresses?
Yes
606
106. Return the SubSystem Network Address
SubSystem Network Address
612
112. Return "Not Found"
"Not Found" Condition
Stop


Inoicia
HotDots Routing Method
FIG 6
594
596
Inoicia
HotDots Routing Authority
Start
614
148. Retrieve Routing Table for the SubSystem Type
Master Routing Table associated with SubSystem Type (ResSys, MembSvc, or Registrar)
616
116. Send Table
Stop